

Workshop Plans for Sustainable City

Lowell will be the site of innovative community meetings in April 2002 to develop a shared vision of the most environmentally sound, economically strong, and democratically vibrant city that its residents can imagine. Workshop participants will include a diverse group of residents, local government officials, business owners, and technical experts. Based on a successful method devised in Europe in the 1990s, and funded by the National Science Foundation (NSF) and the Massachusetts Foundation for the Humanities, this planning effort once again puts Lowell at the forefront of American cities.

Lowell will be the first city in the United States to employ the "scenario workshop," a participatory planning approach that draws on the collective experience and imagination of a community. The original model, developed in Denmark at the Danish Parliament's Board of Technology, has been used throughout Europe by the European Commission to promote innovative long-range plan-

ning. Ida-Elisabeth Andersen is in Lowell, on leave from the Danish Board of Technology, as advisor to the project.

Lowell is widely recognized as the first planned industrial city and also for being the country's first urban national park. Through the "scenario workshop" process, Lowell has the opportunity to now become a model for grassroots planning in the United States. Some 60 participants will read four brief stories (scenarios) depicting alternative visions of life in Lowell in 20 years. Each story will describe imagined conditions, restrictions, and technologies available to future city residents. Major themes will include issues of water, waste, energy, housing and transportation.

Participants will critique the stories and shape a common ideal vision of the future city. This holistic vision will represent the best choices and policies for sustaining a high quality of life based on the efficient use and re-use of resources. Of particular interest is seeing how social and political effects can be taken into

account, along with economic and environmental considerations, in making decisions about the use of all forms of technology in daily life. After developing their own hopeful picture of Lowell's future, workshop members will create an action plan for realizing their vision. The process will culminate in a press conference and later a city-wide forum, where the workshop results will be presented and debated.

The project is coordinated by the Center for Family, Work, and Community and the Center for Industrial Competitiveness and the Loka Institute, founded by Richard Sclove (author of "Democracy and Technology"), in collaboration with city planners who are working on the City of Lowell's Comprehensive Master Plan. Hal Salzman of UMass Lowell and Sclove are leading the project. For more information, contact David Turcotte at (978) 934-4682 or David_Turcotte@uml.edu or Julie Villareal at (978) 934-4772 or Julie_Villareal@uml.edu.

—PM

Assessing the Cost of Doing E-Business

Only a quarter of a century ago, only a few offices possessed such exotic pieces of office equipment as a personal computer or a fax machine. Now they are part of the cost of doing business.

In the last several years, the new exotica has become whether or not a company is engaging in e-commerce; do they have a website? are they on-line? if not, why not?

In light of the increased presence of e-businesses (E-Bs) in the past few years, Profs. Riaz Khan and Luvai Motiwalla, both of Manufacturing and MIS Group, are conducting a study, "An Intra and Inter-Industry Analysis of E-Business Initiatives."

According to Khan, little is known about the impact of E-B initiatives on the financial health of companies. This would be the first attempt they are aware of to test the widely held belief that doing business on line will greatly enhance a company's profitability.

This study grew out of UML-run workshops, first for the Lowell Small Business Assistance Center, and then several held on campus through a Public Service Grant from the University. The E-B workshops were very popular with government offices, local banks and new companies trying to keep up with the new wave of marketing tools and practices.

It wasn't long before the two realized that, as popular as the web was among new businesses, there was little data available to demonstrate its effectiveness.

Khan says they decided to compare the financial performance of companies that were engaging in E-B initiatives to those that were not. They also looked at how the E-B firms did both before and after 1996 when

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One-Time Pilot Takes a Flight of Fancy

I hadn't flown an airplane for many years but, even so, I was pretty certain I wouldn't have a problem.

The flight plan had me leaving Hyannis on Cape Cod for a short hop to Nantucket in a single-engine Cessna 172P Skyhawk.

The weather was clear and the winds were calm as I sat at the end of the active runway. Once acclimated to the surroundings, I pushed the throttle to full power, rolled down the runway, and eased back on the wheel (or yoke, as it's known in flying parlance).

We lifted off the ground smoothly and began our ascent. So far, so good. It wasn't long, however, before I discovered that this was a little differ-

ent from what I remembered. For one thing, there were a lot of instruments to monitor—air speed, altitude, turn coordinator, heading indicator, vertical speed, and more. I had seen them all before, but this was not quite the same.

Flying "straight and level" is not as easy as it sounds, especially when one is unaccustomed to a particular set of controls. Before long, I began to "porpoise"—climbing too fast and then diving when I over-corrected. I saw horizon and then sky and then water and then the sky again.



▲ **Shaun Montminy, a senior in mechanical engineering, "flies" the latest and most elaborate of three flight simulators used by students taking "Aerodynamics and Flight Mechanics," an elective course taught by Prof. Gene Niemi. Shaun played host to a simulator lab visitor who managed to crash into Nantucket Sound in a mock-up of a Cessna Skyhawk.**

Within five minutes I had lost track of the altimeter reading. The indicator had spun to 200 feet and then 100. And, before I realized it, I was in serious trouble. In fact, I was in Nantucket Sound.

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West Plays Integral Role in Lowell Police Race Relations Council

At a Lowell Police Department Race Relations Council meeting, after a presentation about the hazards of traffic stops, a Cameroonian man explained that, while in America it was standard to wait in the car for the officer to approach, in Cameroon it would be offensive if one didn't get out of the car and would be shot immediately for insubordination. Additionally, he said men do not keep wallets in their pants pockets. As he reached down to pull up his pants leg to show his wallet in his sock, a shot of tension rang through the room as officers put their hands on their weapons and the other council members froze. The civilian had proved the purpose of this council—cultural misperceptions can be dangerous.

Established over a year ago by Lowell Chief of Police Edward F. Davis III, the Race Relations Council (RRC) is made up of 30 to 40 police officers and community representatives. RRC was created to strengthen Lowell Police's relationships with the city's many immigrant communities. Cheryl West, community consultant in the Center for Family, Work and Community, was asked to facilitate the meetings last January.

"I don't know about police training," said West. "For me it was a leap" to take on the challenge of facilitating this group.

The group is so diverse in background representing Lowell's South-east Asian, African and Latino immigrant populations alongside Chief Davis and officers of mixed race and ethnicity, West found it took a while for the group to unify even with monthly meetings. It was a national tragedy that seemed to bring the group together.

"Sept. 11 helped coalesce the group. People were more willing to work together—they no longer were [separate] groups," said West.

Now with a common purpose, RRC is able to move forward to disseminate information they have learned around safety issues, police processes and procedures. Some initiatives devised to make a safer



▲ Cheryl West

and more tolerant community and police force include a weekly call-in cable television program, a video on racial profiling, and a brochure outlining expected behaviors available in different languages. Additionally, the Council has already impacted police training and policy.

"Chief Davis is really opening the door for accountability—building trust and respect and comfort level in both directions," West noted.

The Council is already being looked at as a national model. Two professors from Northeastern University are doing an evaluation and the Council format is being adapted into a national curriculum to be replicated in 22 cities.

West plans to bow out as facilitator at the end of the year. In the meantime, she is trying to more fully involve the campus. Prof. John Wooding, Regional Economic and Social Development, has attended several meetings while Prof. John MacDougall, RESD, and Assoc. Prof. Jeffrey Gerson, Political Science, are encouraging students to participate.

What West finds most exciting about the group are the results, "Ideas don't just stay at the table, they're put into action."

The Race Relations Council television show will air on Lowell cable Monday nights at 8 p.m.

Take Note

Robots Will Kick "Bot" in March 9 Tournament

Costello Gym will be the scene of a high-tech, high-energy competition on Saturday, March 9, as 11 teams from Massachusetts and Rhode Island compete in the regional level of the national Botball program.

The seeding rounds, in which each team will show off its robot's capabilities, will run 10 a.m. to 12 noon. The double elimination tournament of head-to-head competition, will be held from 1 to 4 p.m. A robot festival exhibition from 11 a.m. to 1 p.m., also in Costello, will include demonstrations by UMass

Lowell and Wellesley College students, Mitre Corporation and various high school and middle school groups.

Spectators are welcome. More information about the national competition can be found at www.botball.org and about the festival exhibition at www.cs.uml.edu/botfest.



Paul Severino, Founder of Wellfleet Communications, Will Speak on March 25

Paul Severino founded Wellfleet and served as president, CEO, and director as the company grew into a leading supplier of high performance internetworking systems and services. He then chaired Bay Networks, formed from the merger of Wellfleet and Synoptics. Severino continues to be a venture investor and serves on the boards of many companies. He chairs the Massachusetts Technology Development Corporation and is past chairman of the Massachusetts Telecommunications Council.

Severino will speak on Monday, March 25, at the Senior Executive Forum, a series of discussions that further the understanding of management and engineering issues. The series is held in Kitson 309; Light refreshments are served at 1:00 p.m. and the presentation will begin at 1:30 p.m.

Bus Tour Explores Merrimack Valley Poetry

Tickets are available for a guided bus tour of literary sites in the Merrimack Valley on Saturday, April 27. The "Poetry Crawl" is part of the daylong program "400 Years of Poetry in the Merrimack Valley" organized by the Robert Frost Foundation of Lawrence in celebration of National Poetry Month. The bus tour (1 to 5:30 p.m.) will stop at Frost sites in Lawrence, the John Greenleaf Whittier Birthplace in Haverhill and the Whittier Home in Amesbury, the Anne Bradstreet Memorial in North Andover, and Kerouac Park and Lucy Larcom Park in Lowell. Tickets are \$12.50 per person and may be reserved by calling (978) 725-8828 or by mailing a check to the Frost Foundation, 439

South Union Street, Lawrence, 01843. For more information, contact Paul Marion, community relations, ext. 3107.

"Cotton Dust Papers" Authors to Sign Books, March 11

"The Cotton Dust Papers" details the discovery of byssinosis, a debilitating lung disease afflicting cotton textile workers in this country. Authors Charles Levenstein and Gregory F. DeLaurier, with Mary Lee Dunn, all of the Work Environment Department, will sign copies of their new book on Monday, March 11 at 3:30 p.m. at the Mogan Cultural Center, 40 French Street, in downtown Lowell. Faculty members William Mass of Regional Economic and Social Development and Susan Woskie of Work Environment contributed to two chapters in the book. The Work Environment Department and Mogan Cultural Center Community Committee are co-sponsoring the event. The book is available in the North Campus bookstore and from Baywood, on the Web at www.baywood.com.

Lipchitz Offers Irish History Talk, March 12

Prof. Joseph Lipchitz of the History Department will speak on "History With an Irish Perspective" at 7 p.m. on March 12 in O'Leary Library, Room 222, as part of the 19th Annual Irish Cultural Week of St. Patrick Parish in Lowell. Lipchitz will discuss the ways the Irish have viewed and reacted to history. The lecture, free and open to the public, is co-sponsored by UMass Lowell. For more information about the weeklong Irish-American celebration, call 978-459-0561.

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On the Healing Powers of Emu Oil

Prof. Robert Nicolosi doesn't handle the actual emus. There's simply no room for them in the laboratory.

"Have you seen an emu? Those are big birds," he says.

Instead, the director of the Center for Health Sciences, Health Promotion and Public Health orders the vials of emu oil—"it looks like any other oil"—and goes to work on that. No feathers, no beaks, no pecking and squawking—just the viscous dribble from the fatty tissue that encases emu organs, bottled up and stored in the lab fridge. That's where the miracle resides.

Emu oil has been touted for years as a rub-on cure for aches and pains, aging and dry skin. On late-night television, B-list celebrities and retired athletes vouch for its healing powers and hold aloft vials of goo

with names like "Emu Fire" and "Blue Stuff." Nonetheless, Emu oil has failed to earn a spot on the natural healing shelf alongside Ginkgo, St. John's Wart and the rest of the sanctified natural remedies. The emu oil industry decided that that

validity would only come with some bona fide scientific testing; this in mind, the American Emu Oil Association gave Nicolosi a buzz. Then they gave him a grant for \$30,000, and mailed him a gallon of their eponymous oil.

Partnered with researchers at the Forsyth Institute in Boston, Nicolosi and researcher Tom Wilson have so far found some definite benefits to the use of emu oil—at least in mice with skin inflammation, and hamsters with high

cholesterol.

"So far, we've seen some definite effects," Nicolosi says.



▲ Prof. Robert Nicolosi, director of the Center for Health Studies, Health Promotion and Public Health, is leading a UMass Lowell-based study into the healing powers of emu oil.

RESO Speaker Examines the Failures of the American Left, March 6

G. William Domhoff of the University of California, Santa Cruz will examine the "Three Big Failures of the American Left" in a talk on Wed., March 6 at 1 p.m. in Room 222 of O'Leary Library. He is the author of "Who Rules America: Power and Politics" and "The Powers That Be." The Department of Regional Economic and Social Development is sponsoring the lecture.

Domhoff will discuss three failures: the folly of the left to insist on third parties and why they are a mistake; the failure to see the possibilities for egalitarian use of markets, thus destroying the hopes for greater equality in the face of the complete failure of central planning; and the failure to insist upon strategic non-violence as

the only moral and sensible method for bringing about social change if one's focus is democracy and greater equality.

G. William Domhoff is a research professor in sociology at UC Santa Cruz, where he teaches a course on power, politics, and social change. He also has taught at the UC Santa Barbara; the University of Paris; and Colgate University, where he was an A. Lindsay O'Connor Chair in American Institutions in 2001. Four of his books are among the top 50 best sellers in sociology for the years 1950 to 1995. For more information, contact Hal Salzman, Center for Industrial Competitiveness, ext. 2725 or Hal_Salzman@uml.edu.

Teaching Council to Mark 10-Year Milestone

The 10th anniversary of the Council on Teaching, Learning, and Research as Scholarship will be celebrated as a Conversation Dinner, with Chancellor Hogan opening the festivities, in the faculty lounge at Lydon Library on March 12.

The 5:30 p.m. dinner will feature several UMass Lowell speakers: Jacqueline Moloney of Continuing Studies; Sheila Riley-Callahan, director of Academic Services; Chemistry

Prof. Arthur Watterson; and Profs. Dean Bergeron and John Wooding of Regional Economic and Social Development. A reception and poster session at 3 p.m., followed by a 3:45 presentation ceremony, will both precede the dinner.

Seating for the event is limited. Reservations must be received no later than March 7. For further information or to reserve a seat, call ext. 2925.

New Department in Cultural Studies Holds Grand Opening

The University of Massachusetts Lowell is introducing a new interdisciplinary program in Cultural Studies that will not only allow, but encourage students to pursue a broad range of academic options.

The Cultural Studies Department, which will offer a B.A. and, eventually, a master's and doctoral degree, will host a "grand opening" for the campus community on March 26 from 3:30 to 5 p.m. in Coburn Hall, Room 112.

Five years ago, Prof. Liana Cheney, art history, conceived of a program focusing on European cultures. As the idea grew, it took on, not only a broader geographic view, but an academic one as well.

"Diversity is our main cultural characteristic," Cheney says, "and the arts, literature, languages, and sciences play a vital role in how diverse people and communities view themselves and each other. The more we understand other modes of thinking, the more we understand our own and become less bias."

Most academic programs tend to focus on separate facets of culture. This program will concentrate on the interrelations and interactions of various fields of study with one another. It will also enable students to grasp the various cultural strands that have affected the Lowell region and the influences they have had on each other.

Cultural Studies will provide a framework for those interested in linkages between the humanities and the social sciences. The core faculty will be drawn from languages and art history, with

collaborations from music, social sciences and other humanities areas. It will also serve as an administrative umbrella for those enrolled in the Bachelor of Liberal Arts program (BLA).

According to Prof. Anne Trenkamp, who will serve as the coordinator of the BLA program, the new department will provide BLA students with more cohesion. Currently, BLA students have no physical space to call home, and have little opportunity to interact with others in the same program.

All involved agree that the department will positively affect the opportunity for collaboration among disciplines, as well as the community. Dean Nancy Kleniewski says she expects, "new courses that blend the language, literature and culture of different societies."

"It's always good to rub your brain against someone else's brain," says Prof. Joseph Garreau, modern languages, who will be joining the department.

The faculty hope that the students trained in the program will serve other urban and rural areas of America in a number of professional fields, from museum administrators and scholars to makers of public policy.

The program will be housed, at least for now, in Coburn Hall, Room 114 and will be directed by Cheney, with modern languages Prof. Mario Aste serving as co-director. For information, contact Cheney, ext. 3495 or Liana_Cheney@uml.edu.



Advisory Board Welcomes New Members

▲ The College of Arts and Sciences recently welcomed four new members to its Board of Advisors. They include, from left, David Lussier, history '91, Under Secretary of Public Safety Carol Higgins O'Brien, criminal justice '82 and '90, Attorney Frank Talty, political science '77, and Judie Post, sociology '78, social psychology '93, not shown.

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Assessing the Cost of Doing E-Business

e-commerce really took off. Nearly 200 of the companies in the study were engaged in E-B. Another 60 or so non-EB firms were included as a scientific control group. Research was based upon financial reports that the two found online. The companies included such notables as Wal-Mart and Cysco Systems.

According to Khan, "overall, E-B has impacted business performance, but the positive results have been exaggerated. In addition, benefits are not similar across an

industry or within each company."

Next month, Khan will present their findings at the "Information Systems One World" Conference in Las Vegas. In a future study, Motiwalla says they will attempt to discern why, given the relatively low cost of becoming an E-B, e-commerce is not as economically efficient as it claims to be. Ultimately, they plan to establish best practices in e-commerce.

Despite the ambiguous results so far, Khan believes they will

recommend that companies should pursue a strategy that includes an E-B initiative.

"It is beneficial to enter E-B," Khan says, "if, for no other reason, than to remain competitive." E-B, it appears, will become just as essential to business as telephones and fax machines were before it.

—RS



▲ Profs. Riaz Khan and Luvai Motiwalla, Manufacturing and MIS Group, review the data of their latest collaboration, an examination of the financial health of e-business companies.

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One-Time Pilot Takes a Flight of Fancy

Fortunately for me, the "plane" I was flying was actually nowhere near water. It was a Personal Computer Aviation Training Device, a flight simulator located in Ball 222.

The simulator is one of three that Prof. Gene Niemi of Mechanical Engineering has been using for about three years in a senior elective course called Aerodynamics and Flight Mechanics.

The simplest one—with a yoke, a few buttons, and an instrument panel displayed on the monitor—is, as Niemi says, "like the kind that kids can use at home."

The second one—onfigured as a Cessna Skyhawk for my "flight"—has a panel with a yoke, rudder pedals, flaps, trim tab control, radio buttons, an instrument array on the monitor and other features. When you start it up, it sounds like a single engine plane.

These computerized units come with different software packages that enable the operator to configure the simulators as anything from small planes to airliners.

The newest addition to this "hangar" of equipment is a ground trainer donated to the University recently by the Bridgewater State College Aviation Science Program. Used at Bridgewater to train pilots in conjunction with local flying school courses, this simulator has a complete instrument panel (not a monitor display) with all instruments and controls.

Niemi, who has a pilot's license himself, says his aerodynamics class averages about 15 students a year. Each student is required to complete three projects, one of which deals with the flight simulator.

"The simulator requires a lot of extra work, a lot of practice," he says, "but the majority of them elect to do it because they find it so interesting."

"If faculty can provide students with something exciting, they'll do it even if it requires more work. It's a hands-on, practical experience and it's fun," he adds. "That's what education is all about."

—JMcD

Progress Software Donates \$10K to Computer Science Systems Lab

Computer science alumni and students joined Progress Software Corporation executives in presenting the Computer Science

Over the past few years, Progress has hired a number of interns from UMass Lowell. Many of these positions have turned into full-time

employment opportunities. Some graduates also attended the ceremony, including Kapil Jain, '01, a software engineer in the database group who joined the company in early February; Wei Tang, '01, a software engineer in the database group; John Devereaux, '84, a senior QA engineer in the database group; Stanphenie Yao, '98, a senior software

engineer; and Jim Arsenault, '86, architect in the server technology group.

State Sen. Susan Fargo, who represents Bedford, Mass., attended the ceremony and presented Progress with a proclamation citing the company's 20 years of contributions to the state's high tech industry. Fargo is heavily involved with state education initiatives and is vice chairman of the Senate's committee on Science and Technology.

▲ Progress Software executives presented the Computer Science Systems Lab with a \$10,000 donation. On hand for the ceremony were, from left, Prof. Thomas Costello, chair of the Computer Science Department; Gus Bjorklund, wizard/vice president of technology, Progress; Pete Sliwowski, vice president of Progress Products; Sen. Susan Fargo; Dean Robert Tamarin, Division of Sciences; and Prof. James Canning, director of the Systems Lab.

Systems Lab a grant for \$10,000 at a recent ceremony held at Olsen Hall. The donation will fund four students in the Systems Lab for a semester.

Prof. James Canning, director of the Systems Lab, accepted the gift on behalf of the Department along with Dean Robert Tamarin, Division of Sciences, and Prof. Thomas Costello, chair of computer science.

"The Progress Software/UMass Lowell relationship has been mutually beneficial," said Gus Bjorklund, wizard and vice president of technology at Progress Software, who made the presentation. "UMass Lowell has always been recognized as a strong technology school, and its computer science students are a testimony to the excellence of its education program."

Canning noted that it didn't take long for Progress to "take a chance" on UMass Lowell alums when the company and the department were both in their infancy 20 years ago.



▲ Several computer science alumni were present at the celebration of the Progress/UMass Lowell partnership. Pictured, from left, Prof. James Canning, director of the Systems Lab; Tom Harris, Progress Software; John Devereaux, '84, senior engineer, QA Database Group; Jim Arsenault, '86, architect, server technology group; Stanphenie Yao, '98, senior software engineer; Gus Bjorklund, wizard/vice president technology; Kapil Jain, '01, software engineer, database group; Wei Tang, '01, software engineer, database group; Dean Robert Tamarin, Division of Sciences.

Lowell Schoolchildren Take a Bow

Master teacher Susan Turcotte-Gavriel silently holds her bow, poised inches above her violin strings. Before her, 65 third- and fourth-graders from across Lowell hurry to get their cellos, violas or miniature violins into the “ready” position. Once the instructor is satisfied, the music begins.

Since the fall, the children have been participating in the UMass Lowell String Project, a program made possible by a grant from the National String Project Consortium (NSPC) and matching funds from the University. It is designed to provide instruction in the basics of stringed instruments.

On Feb. 10, the String Project presented its debut concert to an audience of more than 200 at Durgin Hall.

“It was very exciting,” says music Prof. Kay G. Roberts, project director, “the kids were thrilled by the response—they especially loved the applause—and they felt good about their performance.”

The students attend hour-long classes twice a week at no charge. They learn not only how to read

notes, but proper stance, finger position and how to hold and set down their bows. During the first few classes, they don’t even use instruments while they learn the correct posture for playing.

“The children are full of energy. It’s a great experience for them,” says Roberts.

The program serves as a training ground for new music education teachers as well. Under Turcotte-Gavriel’s supervision, UMass students Andrew Light and Darcie Pickering are learning techniques for string instruction.

The Lowell Public Schools system has picked up the \$60 per year tuition for each child. The NSPC is providing \$10,000 per year over the next 10 years, and the University is matching



▲ Prof. Kay G. Roberts tunes a miniature violin for one of the students participating in the Lowell String Project. The Project, which Roberts is coordinating, gave its debut concert on Feb. 10 at Durgin Hall.

that contribution to cover the additional costs of the program.

For more information, contact Prof. Roberts, ext. 3867.

Roberts Takes Up the Baton

Prof. Kay G. Roberts, music, will be guest conductor for the Massachusetts All-State Orchestra in March. The orchestra of approximately 100 high school musicians from throughout the Commonwealth will perform on Saturday, March 16 at 1 p.m. at Symphony Hall in Boston.

The orchestra will present two pieces selected by Roberts, “Global Warming” by Michael Abels and “Symphony No. 2—The Romantic” by Howard Hinson. Roberts has conducted the first selection with the Cleveland and Chicago symphonies, but says it was written for a youth orchestra. It blends African rhythms with a Middle Eastern melody, and includes a hint of Irish folk as well.

The Hinson piece premiered at Symphony Hall in 1930 in celebration of the hall’s 50th anniversary. Roberts believes it will be a special honor for the students to bring the work back to this stage 72 years later.

The concert is being presented as part of the Massachusetts Music Educators Association Conference, March 14-16. For ticket information, call the MMEA at (978) 468-0211.

UML Training Helps Police Identify Hazards at Emergency Sites

Several years ago, a tanker truck rolled over on a traffic rotary in Lowell. In addition to the usual considerations of medical needs and safety, police officers were concerned about an unidentified liquid leaking from the truck’s tank. Was it dangerous to breathe the fumes? What were the risks of stepping into the liquid to get to the truck driver? What distance from the liquid would be safe for emergency workers?

Police, often the first responders to an emergency, routinely face potentially hazardous situations with little information on the kinds of contaminants involved. In February, that situation began to change, as members of the Lowell Police Department (LPD) participated in an Emergency Response Awareness Course delivered by The New England Consortium (TNEC) at UMass Lowell.

TNEC annually trains hundreds of municipal workers, emergency responders from industry, and others. They provide hazardous materials training and refresher courses to the 200 members of the Lowell Fire Department.

The LPD course helps officers anticipate the chemicals and hazardous wastes they might face at



emergency sites. “Officers need to know the potential risks, what action is required immediately, and how to find more information,” said Tom Estabrook, manager of police training for TNEC.

The course was developed by Estabrook, LPD Chief Edward F. Davis III, and Charles Ouellette, LPD’s director of training. Twenty members of the department participated, including detectives, investigators, dispatchers, detention attendants, members of the traffic bureau, and Deputy Superintendent Kenneth Levallee, who is in charge of patrol. “We wanted to include officers

▲ Participants in UMass Lowell’s Emergency Response Awareness course included, from left, Tom Estabrook, trainer; Kyriakoulis Tsouprakos of the Lowell Police Department (LPD); Jimmy Smith, trainer; and, also from LPD, Deputy Superintendent Kenneth Levallee; Diane Capone; and Mao Oeur. LPD sent dispatchers, detention attendants, members of the traffic bureau, and officers—often the first responders to encounter potentially hazardous materials at the scene of an emergency—to the training.

who are likely to be at emergency sites and some of the personnel who can advise officers on what risks they might face.”

New Institute Integrates Social and Economic Initiatives

The Center for Family, Work and Community (CFWC) and the Center for Industrial Competitiveness (CIC) are being integrated to form the new Institute for Regional, Economic and Social Development, bringing together all of their programs under one administrative umbrella.

Prof. John Wooding, who is overseeing the process, says this restructuring will enhance many of the social and economic initiatives of the University. “The purpose is to create a focused institute for outreach to business and the community,” explains Wooding.

According to Wooding, the institute will allow administrative functions to be more streamlined, while providing a “gateway” for research and training activities in the wider community.

Robin Toof, who has been serving as the assistant director for CFWC, will be directing the administrative chores for the institute.

Federal Legislative Aides Visit Campus

Key aides from Massachusetts congressional and senatorial staffs spent a recent February morning on campus touring facilities, listening to speakers and viewing presentations.

"Forging Partnerships for a Sustainable Economy" attracted staff members from the offices of U.S. Senators Edward Kennedy and John Kerry and U.S. Representatives Marty Meehan and Edward Markey. It was coordinated by the UMass Lowell Office of Communications and

Marketing and sponsored by the Research Foundation.

The day included a welcoming talk by Chancellor William T. Hogan, tours by Diana Prideaux-Brune, special assistant for economic development; Dr. Peter O'Connell, director of the Tsongas Industrial History Center; and Prof. Jerry Waldman, co-director of the Submillimeter Wave Technology Lab. Speakers at the luncheon program at Wannalancit Mills included Dr. Louis Petrovic, director of external funding, technol-

ogy transfer and partnering; Dr. Robert Wagner, provost; Howard Berke, visiting professor of business; Prof. Stephen McCarthy, plastics engineering; and Prof. Susan Braunschut, biology.

There also were detailed displays by the College of Education's Demonstration School, College of Engineering's Design Camp, Center for Health and Disease Research and Toxics Use Reduction Institute.



▲ Dr. Peter O'Connell, director of the Tsongas Industrial History Center, right, explains the hands-on educational opportunities available to students and teachers to Mark Sternman, senior policy advisor to U.S. Sen. John Kerry.



▲ Prof. Jerry Waldman, co-director of the Submillimeter Wave Technology Lab, explains some of the U.S. Army-funded research to federal legislative staffers.



▲ Joan Wasser, education senior issues manager for U.S. Rep. John Kerry, listens intently to Prof. David Kriebel, co-director of the Lowell Center for Sustainable Production, at the luncheon.



▲ Visitors to the Tsongas Industrial History Center included, from left, Bill McCann, chief of staff for U.S. Rep. Marty Meehan; Patrick Cook, district director for Rep. Meehan; Paul Dufresne, congressional fellow in the office of Rep. Meehan, Patti McCafferty of the UMass Lowell Office of Communications and Marketing; and Stephen Kerrigan, a senior aide to U.S. Sen. Edward Kennedy.



◀ Plastics Prof. Stephen McCarthy, right, discusses his research on biodegradable nanospheres to Bill McCann, chief of staff for U.S. Rep. Marty Meehan.



▲ Andy Gatesman, senior scientist, left, demonstrates the workings of the submillimeter wave technology lab to, from left, Stephen Kerrigan of U.S. Sen. Edward Kennedy's office and Mark Gallagher, district director for U.S. Rep. Edward Markey, as Prof. Jerry Waldman, co-director of the lab, right, looks on.

Health Fair Will Address Bio-Terror, Other Issues

The University's upcoming annual Health Fair, to take place Wednesday, March 13 from 9 a.m. to 1:30 p.m. in Weed Hall on the South Campus, will explore issues as diverse as asthma, workplace ergonomics, fast-food options, and bio-terrorism threats.

The health fair, at which refreshments will be served, is sponsored by the UMass Lowell College of Health Professions.

Panel Assesses the State of Civil Liberties in the U.S.

◀ Nancy Murray of the American Civil Liberties Union of Massachusetts was on campus with Dan Kanstroom of the Boston College School of Law to express their concerns about Civil Liberties in America in the wake of the Sept. 11 attacks and the U.S. Patriot Act. The discussion on Feb. 14 was presented by the Peace and Conflict Studies Institute, the Council on Diversity and Pluralism, and the Political Science, Regional Economic and Social Development, and Sociology departments.



African Art Exhibit, at Brush Gallery, Reflects the City's Ethnic Mix

An important new exhibit—"A Continent Away: Multiple Identities in Contemporary African Art"—to be augmented by a panel discussion, music recital and fashion show, opened Feb. 10 at Lowell's Brush Gallery. It will continue through June 2.

The work of ten African-born artists from seven nations—Senegal, Ethiopia, Cameroon, Mali, Sudan, South Africa, Ivory Coast—will be on exhibit, each reflecting a distinct artistic personality, as well as cultural differences. In addition, a documentary film by Boston filmmaker Wesley Issac Richardson, "Africans in Lowell," accompanies the exhibit.

Roughly midway through the exhibition period, on Sunday, April 7, a panel discussion—"Africa is Not a Country"—will feature panelists from Boston College, Smith College, Harvard University, and the Cambridge Center for Adult Education. Four days later, on April 11, a recital of West African music will be performed at the Visitors' Center of Lowell's National Historical Park by the Tufts University African Music and Dance Ensemble. Finally, on May 5, the exhibit's calendar of special events will conclude with an African fashion show.

The importance of the exhibit is outlined in the gallery's written announcement: "Until the end of the 20th century," the e-mailed announcement begins, "African art had been seen collectively as the product of distinct ethnic groups...[with] African artists re-

gated to the status of third-world exotica..."

"Today, [African art] is being viewed with a more open eye and a transcultural aesthetic...encouraging recognition of Africa as a serious destination for important and unique works of art."

Another reason for the exhibit's significance, and for its location at the Brush Gallery, is the ethnic make-up of Lowell. The city, with an African-born population of 4,500 to 6,500, representing some twenty countries, as well as a strong and diverse employment base—African-run small businesses in Lowell run the gamut from computer education to food markets and hair-braiding salons—provides an ideal venue for such an artistic event.

The exhibit has been made possible by grants from the LEF Foundation, the Nathaniel and Elizabeth Stevens Foundation, and the Parker Foundation. Additional support has been provided by the International Music and Art Foundation, the UMass Lowell Council on Diversity and Pluralism, the Lowell Cultural Council, and the Massachusetts Cultural Council.

The Brush Gallery and Studios is a non-profit service, education and membership organization which provides studio and exhibition space for artists and art-related programs. It is located at 256 Market Street, in the National Historic Park next to the Visitors' Center.

For information phone (978) 459-7819.



Maviyane-Davies Makes Graphic Statements

◀ Chaz Maviyane-Davies demonstrates how he uses graphic design to make powerful political statements about his native Zimbabwe and the world to a packed audience. The lecture by the artist, an associate professor at the Massachusetts College of Art, was sponsored by the Peace and Conflict Studies Institute.

Bill Hersey and the After Hours Band: Still Making That Old-time Music

Bill Hersey was 50 years old when he took his first trombone lesson—on a used, years-old horn—from a UMass music major. He was in his 15th year as a UMass Lowell English teacher, had never played an instrument in his life, and "couldn't have told you the difference between a sharp and a flat."

But he'd always loved jazz—the "sound of brass" especially. And someone, a long time ago, had remarked to him that the trombone had a soul all its own. He had never forgotten that:

"Because it's right. As soon as he said it, I knew it was right. The instrument has a soul. If you listen—if you know *how* to listen—you can hear it. You really can."

And so he got himself a trombone, then a teacher. And he learned to play. Two or three years later, when he'd gone about as far as he could go on his own, he looked around for a group. And found one: the After Hours Band, based out of the Lowell area, headed by a drummer named Earl Powell.

"They'd been together only about three years at the time," he remembers. "But most of them had been playing all their lives. I was the new boy. They were generous to take me in."

Bill Hersey will be 70 on his next birthday. He is still teaching English—which he's done now for 42 years, 35 of them at UMass Lowell. And he's still on the trombone with the After Hours Band. There are 17 of them today—including four saxophones, four trombones, guitar, drums, and piano—and they play everything from Glenn Miller and Count Basie to Bette Midler and '60s rock 'n' roll. "It all depends what the function is," he says. "We do charity events, retirement parties, fundraisers, church functions, all kinds of stuff. The music's a little different for each."

Two Wednesday evenings a month (usually the second and fourth), you can find them practicing in Durgin Hall on the South Campus, where they try out new numbers, or sometimes new arrangements of the old ones—"and just generally have a lot of laughs."

Soon, says Bill Hersey, there'll be more time than ever for practice: "My retirement's coming up. And playing the trombone—getting better at it, learning a few more things—that's one part of it I'm really looking forward to."



Reception Honors ASA0 Members

▲ A reception was held in the Faculty Lounge in Alumni Hall last month to honor members of the Association of Students of African Origin (ASA0) and the contributions of African Americans. Among the participants were, from left, Jennette Binjour; Provost Robert Wagner, who addressed the group; ALANA Director Stephan Coggs; Shonte Brittle; ALANA Vice President Bobby Tugbiyele; and Toshanda Harrison.



▲ UMass English Professor Bill Hersey, trombone at the ready, in his campus office—with a replica of "Poor Yorick's" Hamlet-inspired skull over his left shoulder—has been playing with the "After Hours" jazz band since first learning the instrument nearly 20 years ago.

UMass Engineering Prof Will Be Focus of PBS Special, "On the Ball"

UMass Mechanical Engineering Prof. James Sherwood, who has already received wide acclaim as well as more than \$1 million in grant money for his work on the testing of the balls and bats used by Major League Baseball, will be among a handful of men and woman profiled on an upcoming PBS special devoted to the effects of technology on modern sports.

"On the Ball," a product of PBS's "Scientific American Frontiers" series hosted by Alan Alda, will air Tuesday, March 19 at 9 p.m. eastern standard time. Sherwood will be one of five figures profiled. Others include a woman from the University of Calgary who has developed a helmet to track where athletes direct their eyes during play; an engineer who uses a pair of cameras to assess the line of pitches as an aid to major league umpires; a Dartmouth professor working to calibrate the differences in the sounds of bat-hits to assist outfielders in predicting the locations of fly balls; and a doctor who has developed a relaxation technique to increase the capacity of deep-sea divers.

Sherwood, among other services he is performing for baseball, has developed a system—an outgrowth of his one-of-a-kind "hitting machine" housed in the basement of Pasteur Hall—that measures bat-speed as well as the velocity of batted balls. This, among other things, has been an aid to player safety, in helping the National College

Athletic Association (NCAA) to keep a lid on the speed of balls coming off the notoriously fast aluminum bats of college players. Sherwood is responsible also for the testing and accrediting of every bat used by the NCAA.

A segment of the "On the Ball" PBS program will feature Sherwood's Pasteur hall batting machine—concocted from a pine crate and mechanical throwing arm—that serves the functions of both pitcher and hitter in measuring bat-speed and ball velocity.

A separate segment included in the "On the Ball" program, focusing on the differences between the sounds of wooden and aluminum bats, was made with the participation of the UMass Lowell baseball team.

Sherwood, a professor with a doctorate in aerospace engineering

who, only three years ago, was compiling data on car-crash simulations, is now the beneficiary of more than \$1 million in grant money from Major League Baseball, the Rawlings company, and at least three bat manufacturers. His testing lab in Pasteur Hall has become known unofficially, among NCAA and MLB officials, as the Baseball Research Center.

But there is a natural dilemma behind the work he performs, Sherwood told *The Shuttle* roughly two years ago:

"In a sense, I'm caught in the middle here—between the bat companies, who mostly just want to make hot bats, and the governing bodies [of the NCAA and the National Federation of High Schools] who are trying [for the sake of safety] to tone things down."



▲ A bat-sound measuring system, foreground, used as a predictor of ball location, is shown here in use at a practice session of the UMass Lowell River Hawks.



▲ Prof. James Sherwood, shown here in his Pasteur Hall bat- and ball-testing center, will be profiled on an upcoming PBS program, "On the Ball," which looks at the ways in which science and technology are changing the face of American sports.

Promotions Appointments

Appointments

Gordon A. Candow, University police officer, from Massachusetts General Hospital police and Townsend Police Department reserve.

Daniel T. Desmarais, University police officer, from budget director, Lowell Police Department.

Jennifer L. Gaudet, researcher in the Center for Industrial Competitiveness, from researcher/writer at the Donahue Institute in Boston.

Kristin Lamond, University police officer, from resident director, UMass Lowell.

Thomas O'Donnell, University police officer, from Newton, N.H. Police Department.

Sanphalla Sok, office assistant in Work Environment, from ABC Financial Network LTD.

David Sullivan, reactor operator in Physics Department, from undergraduate in Chemical/Nuclear.

Suizhou Yang, postdoctoral research associate in Chemistry, from UMass Lowell class of 2001.

Research Notes

Colby, Frank
COMET
\$7,002

The Development Propagation and Emission of Severe Convection in the Boston-Providence Corridor

Kumar, Jayant
U.S. Army Soldier, Biological, Chemical Command
\$527,742
Light-Weight Wearable Solar Cells

Lai, Francis
Toray Industries, Inc.
\$138,040
Investigation of 3D Solid Element CAE in Injection Molding

Levenstein, Charles
Dana-Farber Cancer Institute
\$64,891
Organized Labor and Tobacco Control

Mandell, Charles
UMass Amherst
\$13,554
Specialization in Developmental Disabilities

McCarthy, Stephen
Implant Sciences Corp
\$15,000
Biodegradable Implant for Radiation

Nicolosi, Robert
Cargill
\$9,486
Evaluation of the Cholesterol Lowering Capacity of an Ethanol Extracted Soluble Fiber with 70% Beta-Glucan from Barley and Oats

O'Brien, Arnold
COMET
\$7,002
The Development Propagation and Emission of Severe Convection in the Boston-Providence Corridor

Reinisch, Bodo
Instituto Nacional De Tecnica
\$12,400
Artist 4 Software Maintenance

Siegel, Richard
UMass Amherst
\$13,554
Specialization in Developmental Disabilities

Silka, Linda
Lowell Public Schools, City of Lowell
\$6,600
After School and Other Out of School Time

West, Cheryl
Lowell Public Schools, City of Lowell
\$6,600
After School and Other Out of School Time

Whitten, James
U.S. Army Soldier, Biological, Chemical Command
\$527,742
Light-Weight Wearable Solar Cells

Four Courses from Graduation and Already a CEO

When Bob Bradley enrolled in UMass Lowell's MBA program, he was just looking to get himself out of a rut. He'd been working for an oil company in New Hampshire, and although he enjoyed the job and felt some loyalty to the industry his father had worked in for 40 years, he was "feeling kind of stagnated."

"I just felt like I had to start getting some of these brain cells ticking again,"

Bob Bradley, FuelSpot.Com, CEO.

"I just felt like I had to start getting some of these brain cells ticking again," he says.

You could say he's accomplished that goal.

While he's a few years behind on his degree, with four courses still to go, Bradley is now the CEO of his own company, overseeing two offices in the U.S. and more than 30 employees. And before the economic downturn, which hit hard both the oil industry and e-commerce, the two pillars of FuelSpot.Com, Inc., Bradley's company had four offices and 70 employees.

FuelSpot.Com developed from a take-home project for a Spring 1999 course, "Special Topics: Venture Capital," taught by Howard Berke of the

UMass Lowell Research Foundation. When he submitted the presentation in class, Bradley had nothing in mind beyond his final grade. But Berke had bigger ideas for the project, which proposed a Web portal that would register current prices for unbranded petroleum (as opposed to quantities supplied by, for example, Exxon or Texaco).

"Howard thought there was some meat to the idea," Bradley says.

Three months after Bradley turned in his assignment, FuelSpot.Com was incorporated. Berke was named the company's chairman, and the company hired executives from big companies such as Fidelity to run their offices in St. Paul, Denver, and Houston, as well as in Bradley's hometown of North Chelmsford, where he is now based. The company outgrew its offices in Wannalancit Mill, where the UMass Lowell small business incubator helped the company get its legs. FuelSpot is now entering its second round of funding, and has "repositioned" itself in the current economy to be more of a software company.

Meanwhile, Bradley is still plugging away at his MBA, determined to master the fundamentals even as his class project flourishes on the global market.

"Oh yeah, I'm going to finish," he says, "hopefully by May of 2003." In the meantime, says FuelSpot's CEO, "I've learned a lot here that I couldn't learn in the classroom."



▲ Bob Bradley in his office at FuelSpot.Com, the company he developed from a class project in the UMass Lowell MBA program. He keeps a fleet of model fuel trucks behind his desk, relics from the old-time fuel industry now being streamlined by companies like FuelSpot.

Obituaries

Arthur Friedman, Retired English Professor, Dies at 66

Prof. Arthur Friedman, a noted theater critic and member of the University's English faculty from 1966 to 1996, died in Boston on Feb. 18 following a long illness. He was 66.

A native of New York City and a graduate of City College, Prof. Friedman earned a master's degree in English from Boston University and completed all course requirements and orals for a doctorate at Harvard University.

During the 1960s, he acted in numerous Harvard productions at the Loeb Drama Center and Agassiz Theater, working with Stockard Channing, Tommy Lee Jones and James Woods, among others.

At the same time, he began writing theater reviews for a number of publications in the Boston area and, in 1982, was engaged by the Boston Herald as a successor to Elliot Norton. He was twice named Best Theater Critic by Boston magazine.

Ed Reeney, UMass Lowell Electrician, Dies Suddenly

Edward L. Reeney, 57, an electrician with UMass Lowell Environmental Health and Safety, died unexpectedly Feb. 19. He and his wife, Ann. M. (McLaughlin) Reeney, were residents of Tyingsboro.

The funeral Mass took place Feb. 23 in Lowell's Sacred Heart Church. Reeney will be interred in St. Mary's Cemetery, Tewksbury.

"Rich was a 15-year employee, responsible for maintaining all the life-safety systems on the campus, 24 hours a day" says EHS Assistant Director Rich LeMoine. "Whether he was interacting with the students, the fire department or anyone else, he was always there. He was a remarkable man. He will be dearly missed."



Lowell High Students Sample Engineering

▲ More than 20 Lowell High School sophomores got a taste of engineering in a visit to UMass Lowell engineering labs. The students saw demonstrations of large injection molding machines in Plastics Engineering; learned the process for making silly putty in Chemical Engineering; tried various test and measurement devices in Mechanical Engineering, followed by a visit to the baseball bat research lab; and visited the computer, assistive technology and renewable energy labs in Electrical and Computer Engineering. Glenn Bousquet, right, systems analyst in Mechanical Engineering, explains a test to some of the student visitors.

Calendar of Events

Wednesday, March 6

Art Gallery Reception, Kathy Marmor, "The Dynamics of Forgetting: Screen Memories," an installation. Reception from 3 to 7 p.m., with a gallery talk at 3 p.m., University Gallery, South Campus. Exhibit runs from Feb. 27 through April 3.

Art Gallery Reception, Student Sculpture, curated by Prof. Jim Coates. Reception from 2 to 4 p.m., University Gallery, South Campus. Exhibit runs from Feb. 27 through April 3.

Colloquium, Spring Physics Colloquium, "International Nuclear Safeguards in Central Asia," Dr. Parrish Staples of the Los Alamos National Laboratories, 4 p.m., Olney 428. Refreshments served at 3:30 p.m.

Lecture, "Three Big Failures of the American Left: Third Parties, Dislike of Markets and Violence," Prof. G. William Domhoff of The University of California Santa Cruz, 1 p.m., O'Leary Library 222.

Film, "Beneath the Veil," 9 to 9:50 a.m. and 10 to 10:50 a.m., O'Leary Library 222, UMass Lowell, 60 Wilder St. For information, call (978) 970-5000, or go to www.lowellwomensweek.org.

Film, "Mississippi Masala," directed by Mira Nair, 7:30 p.m. to 10 p.m., O'Leary Library Media Center, UMass Lowell, 60 Wilder St. For information, call (978) 970-5000, or go to www.lowellwomensweek.org.

Thursday, March 7

Film, "Five Girls," with a discussion facilitated by Psychology Professor Meg Bond, 2 p.m. to 4 p.m., O'Leary Library 222. For information call the Center for Women and Work, (978) 934-4380.

Panel Discussion, "Lowell Women's Week: Making Room at the Table," 4 p.m. to 5:30 p.m., Smith Baker Center, 400 Merrimack St., Lowell. For information, call (978) 970-5000, or go to www.lowellwomensweek.org.

Film, "The Perez Family," directed by Mira Nair, 7:30 p.m. to 10 p.m., O'Leary Library Media Center, UMass Lowell, 60 Wilder St., Lowell. For information, call (978) 970-5000, or go to www.lowellwomensweek.org.

Friday, March 8

Panel Discussion, "Braided Streams: Women of Faith Speak," 9 a.m. to 11 a.m., O'Leary Library 222, UMass Lowell, 60 Wilder St., Lowell. For information, call (978) 970-5000, or go to www.lowellwomensweek.org.

Panel Discussion, "International Women's Roundtable Discussion," 3 p.m. to 5 p.m., Dove Café, St. Joseph the Worker Shrine, 31 Lee St., Lowell. For information, call (978) 970-5000, or go to www.lowellwomensweek.org.

Saturday, March 9

Workshop, "Girls With Goals: Capture Your Confidence!" 9 a.m. to 3 p.m. Greenhalge School, 149 Ennell St., Lowell. Volunteers needed. For information, call (978) 970-5000, or go to www.lowellwomensweek.org.

Wednesday, March 13

Chancellor's Open Hours, staff, 2 to 3 p.m.; students, 3 to 4 p.m.; faculty, 4 to 5 p.m.; Trustees' Room, Cumnock Hall, North Campus.

Colloquium, Spring Physics Colloquium, "What Can RHIC Tell us About QCD," Prof. John Dawson of the University of New Hampshire, 4 p.m., Olney 428. Refreshments at 3:30 p.m.

Friday, March 15

Performance, STARTS Educational Field Trip Series, "Reading Rainbow," recommended for grades K-3, 9:30 a.m. and 11:30 a.m., Durgin Hall, South Campus. For information, call the Center for the Arts, 4452.

Saturday, March 16

Men's Tennis, vs. St. Michael's, 1 p.m. Cushing Field Complex. For information, call (978) 934-HAWK.

Monday, March 18

Performance, STARTS Educational Field Trip Series, "Olympic Spirit," grades 4 - 6, 9:30 and 11:30 a.m., Durgin Hall, South Campus. For information, call the Center for the Arts, 4452.

Wednesday, March 20

Performance, STARTS Educational Field Trip Series, Jim West's "Dinosaurs," grades 7 - 10, 9:30 and 11:30 a.m., Durgin Hall, South Campus. For information, call the Center for the Arts, 4452.

Friday, March 22

Men's Tennis, vs. Bryant College, 3:30 p.m., Cushing Field Complex. For information, call (978) 934-HAWK.

Sunday, March 24

Men's Tennis, vs. Pace, 1 p.m., Cushing Field Complex. For information, call (978) 934-HAWK.

Tuesday, March 26

Performance, STARTS Educational Field Trip Series, "Romeo and Juliet," grades 7 - 10, 9:30 and 11:30 a.m., Durgin Hall, South Campus. For information, call the Center for the Arts, 4452.

Thursday, March 28

Men's Tennis, vs. St. Anselm, 3:30 p.m., Cushing Field Complex. For information, call (978) 934-HAWK.

Saturday, March 30

Baseball, vs. St. Rose, 1 p.m., LeLacheur Park. For information, call (978) 934-HAWK.

Wednesday, April 3

Baseball, vs. Bryant, 3:30 p.m., LeLacheur Park. For information, call (978) 934-HAWK.

Men's Tennis, vs. Assumption, 3:30 p.m., Cushing Field Complex. For information, call (978) 934-HAWK.

Thursday, April 4

Performance, "The Republic of My Imagination," by Gerald Dickens, great-great-grandson of Charles Dickens, 7:30 p.m., Durgin Hall, South Campus. For information, call Rick Sherburne, 3232, or go to www.uml.edu/dickens.

Baseball, vs. Dowling College, 4 p.m., LeLacheur Park. For information, call (978) 934-HAWK.

Friday, April 5

Performance, STARTS Educational Field Trip Series, "Laura Ingalls Wilder: Growing Up on the Prairie," grades 3-5, 9:30 and 11:30 a.m. For information, the Center for the Arts, 4452.

Performance, The Off-Broadway Players, "The Mystery of Edwin Drood," 8 p.m., Mahoney Auditorium. Tickets: \$6 for general admission, \$5 for students. For information, www.uml.edu/student-groups/offbroadway.

Saturday, April 6

Performance, "Mr. Dickens is Coming!" by Gerald Dickens, great-great-grandson of Charles Dickens, 7:30 p.m., Durgin Hall, South Campus. For information, call Rick Sherburne at 3232, or go to www.uml.edu/dickens.

Performance, The Off-Broadway Players, "The Mystery of Edwin Drood," 8 p.m., Mahoney Auditorium. Tickets: \$6 for general admission, \$5 for students. For information, www.uml.edu/student-groups/offbroadway. Baseball, vs. Assumption College, noon, LeLacheur Park. For information, call (978) 934-HAWK.

Sunday, April 7

Performance, Discovery Series, "Grand Derangement: Dancing in the Flames," music/dance show with Arcadian/rock/Celtic/Irish flavors, 2 and 4:30 p.m., Durgin Hall, South Campus. For information, the Center for the Arts, 4452.

Performance, The Off-Broadway Players, "The Mystery of Edwin Drood," 2 p.m., Mahoney Auditorium. Tickets: \$6 for general admission, \$5 for students. For information, www.uml.edu/student-groups/offbroadway.

Tuesday, April 9

Baseball, vs. Bryant, 3:30 p.m., LeLacheur Park. For information, call (978) 934-HAWK.

Wednesday, April 10

Chancellor's Open Hours, staff, 2 to 3 p.m.; students, 3 to 4 p.m.; faculty, 4 to 5 p.m.; Trustees' Room, Cumnock Hall, North Campus.



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